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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,178	11/25/2003	Shiu C. Ho	BUR920030146US1	1177
30449	7590	12/17/2004	EXAMINER	
SCHMEISER, OLSEN + WATTS			LUU, AN T	
SUITE 201			ART UNIT	
3 LEAR JET			PAPER NUMBER	
LATHAM, NY 12033			2816	

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,178

Applicant(s)

HO, SHIU C.

Examiner

An T. Luu

Art Unit

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10-13 and 20 is/are rejected.
- 7) ☒ Claim(s) 4-9 and 14-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by the Kurd et al reference (U.S. Patent 6,320,424).

Kurd et al discloses in figures 5 and 7 an apparatus comprising a voltage controlled oscillator 40 adapted to provide a first clock signal (62 via 45) comprising a first frequency, and a phase frequency detector 120 adapted to compare the first clock signal clock signal comprising the first frequency to a reference frequency 12, the phase frequency detector comprising a programmable circuit (130 and 132) adapted to vary a minimum pulse width of an increment pulse and a minimum pulse width of a decrement pulse (col. 5, lines 59-65) as required by claim 1. It is noted that the limitation “the programmable circuit being further adapted to reduce a static phase error of the phase locked-loop circuit” is seen as an inherent result derived from the apparatus.

As to claim 11, it is rejected for reciting a method/step derived from the apparatus of claim 1 which is rejected as noted above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3, 10, 12-13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Kurd et al reference (U.S. Patent 6,320,424) in view of the Jeong et al reference (U.S. Patent 6,144,242).

Kurd et al discloses all the claimed invention except for teaching a specific structure of the programmable circuit as required by claims 2 and 3.

Jeong discloses in figure 4C a programmable circuit comprises a multiplexer 440 and a plurality of buffers 442, wherein the plurality of buffers is divided into a plurality of groups, wherein each of the plurality of groups comprises a different number of buffers, wherein each of the plurality of groups is electrically connected to the multiplexer, and wherein the multiplexer is adapted to switch between signals (i.e., by means of "control") from each of the plurality of groups to vary the minimum pulse width of the increment pulse and the minimum pulse width of the decrement pulse as required by the claims.

It would have been obvious to one skilled in the art at the time the invention was made to replace a programmable circuit in Kurd et al with the one taught by Jeong since Kurd et al teaches that "[O]ther embodiments of delay circuits are within the scope of the present invention including a programmable device that allows the user to set the delay", col. 7, lines 32-34.

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A skilled artisan in the art would have selected the programmable circuit taught by Jeong to incorporate into the teachings of Kurd et al since it would provide a digital control over a wider range of pulse widths.

As to claims 12-13, they are rejected for reciting method/steps derived from the apparatus of claims 2-3 which is rejected as noted above.

As to claims 10 and 20, Kurd does not disclose an operable frequency range of the reference frequency as required by claims. However, it would have been obvious to one skilled in the art to determine an operational range and/or optimum range since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

Allowable Subject Matter

5. Claims 4-9 and 14-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose a programmable circuit and method thereof being configured as recited in claims 4 and 14. Specifically, none of the prior art teaches or fairly suggests a structure of an OA, first and second capacitor and a delay line as recited in claims.

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 571-272-1746. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

An T. Luu
12-09-04 *ATL*


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
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